

IN THE CLAIMS

Please amend the claims to read as follows:

Listing of Claims

1-11. (Canceled).

12. (Currently Amended) A modulation apparatus comprising:

a modulator that modulates a frequency converted signal of a frequency of a reference signal by a first baseband phase signal, and generates a modulated signal; and

a phase comparator that finds a phase distortion between a phase of the modulated signal and a phase of the reference signal;

a voltage control oscillator that generates an oscillation frequency as a modulated output signal, the oscillation frequency being determined by a control signal indicating the phase distortion found in the phase comparator;

a frequency converter that converts a frequency of the modulated output signal generated in the voltage control oscillator, and generates the frequency converted signal; and

a compensator that beforehand compensates a phase distortion between the first baseband phase signal and a second baseband phase signal that is generated by demodulating the modulated output signal with respect to the first baseband phase signal, based on a magnitude of a phase change between adjacent data of the first baseband phase signal and a predetermined constant.

13. (Currently Amended) The modulation apparatus according to claim 12, wherein the compensator transforms the magnitude of the phase change into a magnitude of a frequency change in predetermined time, and beforehand compensates the phase distortion with respect to the first baseband phase signal based on the magnitude of the frequency change and the constant.

14. (Currently Amended) The modulation apparatus according to claim 13, further comprising a storage that stores the constant, which is obtained by dividing the phase distortion by the magnitude of the frequency change,

wherein the compensator obtains the phase distortion by multiplying the magnitude of the frequency change by the constant stored in the storage and beforehand compensates the obtained phase distortion with respect to the first baseband phase signal.

15. (Currently Amended) The modulation apparatus according to claim 13, further comprising a storage that has a table storing phase distortion selection information that associates the magnitude of the frequency change with the constant,

wherein the compensator obtains the phase distortion by multiplying the constant selected by referring to the phase distortion selection information using the magnitude of the frequency change by the magnitude of the frequency change and beforehand compensates the obtained phase distortion with respect to the first baseband phase signal.

16. (Currently Amended) The modulation apparatus according to claim 13, further comprising:

a storage that stores the constant obtained by dividing the phase distortion by the magnitude of the phase change, wherein:

~~the compensator obtains the constant by dividing the phase distortion by the magnitude of the phase change and~~ beforehand compensates the phase distortion obtained by multiplying the ~~obtained~~ constant stored in the storage by the magnitude of the frequency change with respect to the first baseband phase signal.

17. (Currently Amended) The modulation apparatus according to claim 12, further comprising a demodulator that generates the second baseband phase signal and demodulates a received signal.

18. (Currently Amended) The modulation apparatus according to claim 12, wherein the modulator modulates a carrier signal, the carrier signal being the frequency converted signal, using the first baseband phase signal compensated by the compensator, and generates the modulated signal.

19 and 20. (Canceled).

21. (New) A communication apparatus comprising the modulation apparatus of claim 12.

22. (New) A modulation method comprising:

modulating a frequency converted signal of a frequency of a reference signal by a first baseband phase signal, and generating a modulated signal; and

finding a phase distortion between a phase of the modulated signal and a phase of the reference signal;

generating an oscillation frequency as a modulated output signal, the oscillation frequency being determined by a control signal indicating the phase distortion found;

converting a frequency of the modulated output signal generated, and generating the frequency converted signal; and

beforehand compensating a phase distortion between the first baseband phase signal and a second baseband phase signal that is generated by demodulating the modulated output signal with respect to the first baseband phase signal, based on a magnitude of a phase change between adjacent data of the first baseband signal and a predetermined constant.